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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,054	10/15/2001	Nordine Cheikh	16517.256/38-21(15094)C	3580

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Lawrence M. Lavin, Jr.
Monsanto Company
800 N. Lindbergh Boulevard
Mail Zone N2NB
St. Louis, MO 63167

EXAMINER
ZEMAN, MARY K

ART UNIT	PAPER NUMBER
1631	

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

SEQ search on 11/20

Office Action Summary	Application No.	Applicant(s)	
	09/976,054	CHEIKH ET AL.	
	Examiner	Art Unit	
	Mary K Zeman	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-11* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-2, drawn to polynucleotides encoding an enzyme, classified in class 536, subclass 23.1.

II. Claims 3-4, drawn to a purified polypeptide or enzyme, classified in class 530, subclass 300.

III. Claim 5, drawn to an antibody to a polypeptide, classified in class 530, subclass 388.1.

IV. Claims 6, 7, and 11, drawn to transgenic plants classified in class 800, subclass 295.

V. Claims 8-10, drawn to polynucleotide-based methods of screening, classified in class 435, subclass 6.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are separate and distinct because the inventions are directed to different chemical types regarding the critical limitations therein. For Group II, the critical feature is a polypeptide whereas for Group I the critical feature is a polynucleotide. It is acknowledged that various processing steps may cause a polypeptide of group II to be directed as to its synthesis by a polynucleotide of Group I, however, the completely separate chemical types of the inventions of Groups I and II supports the undue search burden if both were examined together. Additionally, polypeptides have been most commonly, albeit not always, separately characterized and published in the Biochemical literature, thus significantly adding to the search burden if examiner together, as compared to being searched separately. Also, it is pointed out that processing that may connect two groups does not prevent them from being viewed as distinct, because enough processing can result in producing any composition from any other composition if the processing is not so limited to additions, subtractions, enzyme actions, etc.

Inventions I and III are separate and distinct, as the claims of Invention I are drawn to polynucleotides, while the claim of group III is drawn to an antibody. These are differing biochemical entities having differing biochemical properties, structures and effects. Invention III

would require searching in areas unrelated to polynucleotides, and as such, would require an undue burden on the examiner if not restricted.

Inventions I and IV are separate and distinct as they are drawn to separate and distinct compositions of matter. Invention I is drawn to isolated polynucleotides, while Invention IV is a transgenic multicellular organism: a plant. The isolated polynucleotides can be used in a variety of differing methods which do not involve the generation of a transgenic plant, such as PCR, Southern Blotting, and recombinant protein production. The two Inventions would require searching separate and non-overlapping areas which would constitute an undue search burden on the examiner if not restricted.

Inventions I and V are separate and distinct, as the polynucleotides of Invention I can be used in materially different methods such as PCR, or recombinant protein production in vitro. These differing methods have differing steps and differing intents. The two Inventions would require searching separate and non-overlapping areas which would constitute an undue search burden on the examiner if not restricted.

Inventions II and III are separate and distinct as the polypeptides of Invention II are structurally and biochemically different than the antibodies of Invention III. While the antibodies may bind to the polypeptides of Invention II, the biochemical activities of each Invention are quite different, requiring differing methods and areas of search, which would impose an undue burden upon the examiner.

Invention II is separate and distinct from Invention IV as they are drawn to materially different compositions of matter, having differing biological properties. Invention II is drawn to isolated polypeptides, while Invention IV is drawn to transgenic plants. As such, the two inventions would require searching in different and non-overlapping art areas, imposing an undue search burden upon the examiner.

Inventions II and V are separate and distinct as the polypeptides of Invention II are not used in the methods of Invention V. As such the Inventions would require search in separate and non-overlapping areas, imposing an undue search burned upon the examiner if not restricted.

Inventions III and IV/ V are separate and distinct, as the antibodies of Invention III are not used in the methods of either Invention IV or Invention V, and are materially a different composition that the transgenic plants of Invention IV. As such the Inventions would require

search in separate and non-overlapping areas, imposing an undue search burned upon the examiner if not restricted.

Inventions IV and V are separate and distinct as each method comprises differing steps using differing reagents and materials, to differing ends. Invention IV comprises the transgenic plants, and methods that end with the transgenic plants, while Invention V ends with the identification of an agent which binds a polynucleotide. As such the Inventions would require search in separate and non-overlapping areas, imposing an undue search burned upon the examiner if not restricted.

Enzyme and Sequence Election Requirement Applicable to All Groups

In addition, each Group detailed above reads on patentably distinct Groups drawn to three separate patentably distinct enzymes, or nucleic acids encoding those three enzymes. This is NOT a species election, but a further restriction requirement.

Applicant must elect one of the following enzymes, or nucleotides encoding the following enzymes regardless of the Group elected:

a) adenine phosphoribosyl transferase;

b) β Glucosidase; and

c) isopentyltransferase.

The claims are also drawn to the enzymes encoded by multiple patentably distinct SEQ ID Numbers. The sequences are patentably distinct because they are unrelated sequences, and a further restriction is applied to each Group. For an elected Group drawn to nucleotide sequences, the Applicants are permitted to elect a single nucleotide sequence which encode for one of the above three enzymes. (See MPEP 803.04). For example, a responsive election could be Group I (nucleotides encoding), Enzyme A, SEQ ID NO: X (list appropriate SEQ ID NO:s corresponding to the nucleic acid sequences encoding the elected enzyme).

For an elected Group drawn to isolated polypeptides/ enzymes, Applicant must elect one single amino acid sequence.

For an elected Group drawn to an antibody, Applicant must select one single target polypeptide sequence for that antibody.

For an elected Group drawn to a transgenic plant, Applicant must elect one single plant transformed by a single transgene.

For an elected Group drawn to methods of using isolated polynucleotides in a hybridization method, Applicant must elect one single nucleic acid sequence.

MPEP 803.04 states:

Nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute independent and distinct inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq. In view of limited Office resources, and excessive numbers of sequence directed applications, in is deemed that one sequence is reasonable for search and examination. In addition to the specifically selected sequences, those sequences which are patentably indistinct from the selected sequences will also be examined. Furthermore, nucleotide sequences encoding the same protein are not considered to be independent and distinct inventions and will continue to be examined together.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Due to the complexity of the restriction requirement, it has been placed in writing, and no election by telephone was attempted.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

A fully responsive communication will contain both a proper election of a group, and a further election of an enzyme category, and a further sequence election, as required.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary K Zeman whose telephone number is (703) 305-7133.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at (703) 308 4028.

The fax number for this Art Unit is (703) 305-7401.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center receptionist whose telephone number is (703) 308-0196.

mkz
October 4, 2002

MARY K. ZEMAN
PRIMARY EXAMINER
AU 1631